

IN THE CLAIMS:

Please amend Claim 1 as indicated below. The following is a complete listing of claims and replaces all prior versions and listings of claims in the present application:

Claim 1 (currently amended): An image pickup apparatus, comprising:

a plurality of pixels,

wherein each including pixel includes a first sensitive area and a second sensitive area,

wherein the first and second sensitive areas of a pixel receive light flux respectively corresponding to different areas of an exit pupil of an imaging optical system, and

wherein each pixel includes two photoelectric conversion portions ~~[[are]]~~ formed therein each of the plurality of pixels based on the first and second sensitive areas, ~~and wherein~~ of the pixel so that a sensitivity distribution of the first sensitive area and a sensitivity distribution of the second sensitive area partially overlap in an area interposed between the two photoelectric conversion portions of the pixel; and

an output unit that receives a first electric signal and a second electric signal from each of the plurality of pixels and that detects and outputs a phase difference between corresponding first and second electric signals from each of the plurality of pixels,

wherein the first and second sensitive areas of each of the plurality of pixels are arranged so that corresponding first and second electric signals, received by the output unit, each includes signals generated in the first and second sensitive areas of a corresponding one of the plurality of pixels.

Claim 2 (withdrawn): An apparatus according to claim 1, wherein the plurality of pixels includes at least two types of pixels having different separation directions of the first and second photoelectric conversion portions.

Claim 3 (withdrawn): An apparatus according to claim 1, wherein the plurality of pixels includes at least two types of pixels having different sensitivity regions.

Claim 4 (previously presented): An apparatus according to claim 1, wherein the first and second sensitive areas are formed based on an F-number of the imaging optical system in detection of focus.

Claim 5 (withdrawn): An apparatus according to claim 1, wherein each of the plurality of pixels has a common amplification element adapted to amplify and output a signal from the first photoelectric conversion portion and a signal from the second photoelectric conversion portion, a first transfer switch adapted to transfer the signal from the first photoelectric conversion unit to the common amplification element, and a second transfer switch adapted to transfer the signal from the second photoelectric conversion portion to the common amplification element.

Claim 6 (withdrawn): An apparatus according to claim 5, further comprising a drive circuit adapted to control a first mode in which the signals from the first and second photoelectric conversion portions are added by an input unit of the common amplification element and output,

and a second mode in which the signals from the first and second photoelectric conversion portions are independently output from the common amplification element.

Claim 7 (withdrawn): An apparatus according to claim 1, further comprising

an A/D conversion circuit adapted to convert a signal from the image pickup element into a digital signal, and

a digital signal processing circuit adapted to process the signal from the A/D conversion circuit.

Claims 8-12 (cancelled).